KC-130FRT LOADMASTER 200 SERIES CORE SKILL BASIC														
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLX INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
NIGHT SYSTEMS														
NS	204	NVIS FAM	2.0		365	A	1	NS		R		1.0		204
			2.0	**0.0**								**1.0**		
AIR-TO-AIR REFUELING														
AR	210	DAY FW/TR AR	2.0		365	A	1	D				0.5		210
AR	211	DAY RW AR	2.0		365	A	1	D				1.0		211
AR	213	NVIS AR	2.0		365	A	1	N	204,210,211	R		1.0	204,210FW/TR 211RW	213
			6.0	**0.0**								**2.5**		
CARGO AND PASSENGER LOADING														
CPL	215	PAX, BAGS, AND ROLLING STOCK	2.0		365	A	1	(N)		R		1.0		215
CPL	216	PALLETIZED CARGO	2.0		365	A/S	1	(N)		R		1.0		216
CPL	217	HAZARDOUS CARGO	2.0		365	A/S	1	(N)		R		1.0		217
			6.0	**0.0**								**3.0**		
TACTICAL NAVIGATION														
TACNAV	220	LOW LEVEL	2.0		365	A	1	D				0.5		220
TACNAV	223	NVIS LOW LEVEL	2.0		365	A	1	NS	204,220	R		1.0	204,220	223
			4.0	**0.0**								**1.5**		
AERIAL DELIVERY														
AD	241	PERSONNEL AD	4.0		180	A	1	(N)		R		1.0		241
			4.0	**0.0**								**1.0**		
LRNAV	250	HF COMM	8.0		365	A	1	(N)		SC,R		1.0		250
			8.0	**0.0**								**1.0**		
THREAT REACTION														
THRXI	261	THREAT REACTION	2.0		365	A	1	(N)	(204), 220	R		1.0	(204)	261
			2.0	**0.0**								**1.0**		
ASSAULT LANDING ZONE														
ALZ	271	ERO	2.0		365	A	1	(N)	(204)	R		2.0	(204)	271,272
			2.0	**0.0**								**2.0**		
RAPID GROUND REFUELING														
RGR	273	RGR	2.0		365	A	1	D				1.0		273
RGR	274	NVIS RGR	2.0		365	A	1	NS	204,273	R		1.0	204,273	274
			4.0	**0.0**								**2.0**		
TOTAL FLT/SIM HOURS FOR STAGE			**38.0**	**0.0**					**TOTAL CRP FOR STAGE**			**15.0**		

KC-130T/R LOADMASTER 800 SERIES CORE SKILL ADVANCED															
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
TACTICAL NAVIGATION														
TACNAV	322	LAT	2.0		365	A	1	D	220	R		7.0	220	322
			2.0	**0.0**								**7.0**		
AERIAL DELIVERY														
AD	340	CDS AD	2.0		180	A	1	(N)		SC,R		6.0		340
			2.0	**0.0**								**6.0**		
ASSAULT LANDING ZONE														
ALZ	370	COMBAT OFFLOAD	2.0		365	A	1	(N)		R		7.0		370
			2.0	**0.0**								**7.0**		
TOTAL FLT/SIM HOURS FOR STAGE			**6.0**	**0.0**	TOTAL CRP FOR STAGE							**20.0**		

KC-130T/R LOADMASTER 800 SERIES CORE SKILL PLUS														
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
AERIAL DELIVERY														
AD	441	HEAVY EQUIP AD	2.0		180	A	1	(N)		R		1.0		441
AD	442	HALO/HAHO AD	2.0		365	A	1	(N)	(204, 241)	R		1.0	(204,241)	442
AD	443	COMBO AD	2.0		365	A	1	(N)	241,340 OR 441	R		1.0	241	443
AD	444	BATTLEFIELD ILLUMINATION	2.0		365	A	1	N		R		1.0		444
			8.0	**0.0**								**4.0**		
DEFENSIVE TACTICS														
DEFTAC	462	DEFTAC	2.0		*	A	1	D		R		1.0		462
			2.0	**0.0**								**1.0**		
TOTAL FLT/SIM HOURS FOR STAGE			**10.0**	**0.0**	TOTAL CRP FOR STAGE							**5.0**		

KC-130FRT LOADMASTER
500 SERIES INSTRUCTOR TRAINING

STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
SQUADRON INSTRUCTOR TRAINING														
IUT	501	IUT WORK UP	3.0		*	A	1	(N)				0.0		501
IUT	502	IUT WORK UP	3.0		*	A	1	(N)	501			0.0		502
			6.0	**0.0**								**0.0**		
		TOTAL FLT/SIM HOURS FOR STAGE	**6.0**									TOTAL CRP FOR STAGE		**0.0**

KC-130FRT LOADMASTER
600 SERIES REQUIREMENTS / QUALIFICATIONS / DESIGNATIONS

STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
RAPID GROUND REFUELING														
RQD	601	Evaluate and designate as a RGR Supervisor and Taxi Director	2.0		*	A	1	(N)	273,274			0.0		601
			2.0	**0.0**								**0.0**		
AERIAL DELIVERY														
RQD	602	Evaluate and qualify as a QASO) for BI	2.0		*	A	1	N	444			0.0		602
			2.0	**0.0**								**0.0**		
RQD CODES														
RQD	604	NSQ TRACKING CODE							204		E	0.0		604
RQD	605	T&R INSTRUCTOR	4.0		*	A	1	(N)	502		E	0.0		590,605
RQD	606	NATOPS INSTRUCTOR	4.0		*	A	1	(N)	605		E	0.0		591,606
RQD	607	NS INSTRUCTOR	4.0		*	A	1	NS	604, 605		E	0.0		592,607
RQD	608	WTI TRACKING CODE							607		E	0.0		593,608
RQD	609	CORE SKILL INTRODUCTION INSTRUCTOR	4.0		*	A	1	D	605		E	0.0		N/A
			22.0	**0.0**								**0.0**		
NATOPS														
RQD	690	CHECK RIDE	4.0		365	A	1	(N)			E	0.0		690
			4.0	**0.0**								**0.0**		
		TOTAL FLT/SIM HOURS FOR STAGE	**30.0**	**0.0**								TOTAL CRP FOR STAGE		**0.0**

429. KC-130 F/R/T TO KC-130J EQUIVALENCY MATRIX

KC-130 F/R/T TO KC-130J EQUIVALENCY MATRIX		
KC-130 F/R/T T&R EVENT		**KC-130J T&R EVENT**
200 SERIES		
NS 204		NS 202
AR 210		AR 250
AR 211		AR 252
AR 213		AR 253
CPL 215		CPL 205
CPL 216		CPL 206
CPL 217		CPL 207
TACNAV 220		TACNAV 221
TACNAV 223		TACNAV 222
AD 241		AD 480
LRNAV 250		N/A
THRXI 261		THRX 340
ALZ 271		ALZ 264
RGR 273		RGR 270
RGR 274		RGR 271
300 SERIES		
TACNAV 322		TACNAV 321
AD 340		N/A
ALZ 370		ALZ 263
400 SERIES		
AD 441		AD 384
AD 442		AD 483
AD 443		AD 482
AD 444		AD 485
DEFTAC 462		DEFTAC 440
600 SERIES		
RQD 601		RGR 370, RGR 371
RQD 602		AD 486
RQD 604		RQD 694

CHAPTER 5

KC-130 FLIGHT MECHANIC

*** * NOTE * ***

Crew Resource Management shall be briefed before all flights and/or events.

CHAPTER 5

KC-130 FLIGHT MECHANIC

500. MARINE AERIAL REFUELING SQUADRON (KC-130FRT) UNIT CORE COMPETENCY

1. Background. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The KC-130FRT T&R Manual represents the collaborative effort of KC-130FRT Subject Matter Experts who designed training standards to maximize the full combat capabilities of the KC-130FRT and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander.

2. VMGR Mission. Support the MAGTF Commander by providing aerial refueling and assault support, day or night under all weather conditions during expeditionary, joint, or combined operations.

3. Mission Essential Task List (METL)

a. (UJTL TA 1.1.1) Conduct Tactical Airlift
- Conduct assault support transport.

b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
- Maintain the capability to deploy and operate from advanced bases, expeditionary airfields and forward operating bases.
- Perform organizational maintenance on assigned aircraft.

c. (UJTL TA 1.2.2) Conduct Airborne Operations
- Provide air delivered assault support transport of combat troops, equipment and supplies.
- Provide support for casualty evacuation operations.
- Maintain self-defense capability from ground-to-air and air-to-air threats.

d. (UJTL TA 4.2) Distribute Supplies and Provide Transport Services
- Conduct aerial re-supply.
- Provide support for mobile Forward Arming and Refueling Points (FARPS).
- Provide support for Rapid Ground Refueling (RGR) of aircraft and vehicles.

e. (UJTL TA 4.2.3) Conduct Air Refueling
- Provide Tactical and Long Range Aerial Refueling.

f. (UJTL TA 5) Exercise Command and Control
- Provide Airborne Platform for the Airborne DASC Command Post.

g. (UJTL TA 6.2) Conduct Joint Personnel Recovery
- Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.
- Augment local Search and Rescue (SAR) assets.

h. (UJTL TA 6.4) Conduct Noncombatant Evacuation
- Provide support for evacuation operations.

4. Table of Organization. Refer to Table of Organization 8820 and 8821 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for KC-130F/R/T units. As of this publication date, KC-130F/R/T units are authorized:

Squadron
12 Aircraft
42 Pilots [26 TPC/16 CP (T2P or T3P)]
23 Navigators
25 Flight Engineers
24 Loadmasters
24 Flight Mechanics

Detachment
6 Aircraft
19 Pilots [11 TPC/8 CP (T2P or T3P)]
11 Navigators
12 Flight Engineers
12 Loadmasters
12 Flight Mechanics

5. Core Capability. A core capable squadron is able to sustain 9 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on 3.0 hour average sortie duration and assumes $\geq$ 70 percent FMC aircraft and $\geq$ 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main or expeditionary base.

6. METL/Core Skill Matrix. KC-130FRT core skills directly support the METL as follows:

KC-130FRT CORE SKILLS													
METL	FAI	NSQ	AR	TACNAV	FORM	MULTI PLANE AR	AD	LRNAV	THRX (I)	THRX (R)	ALZ	CPL	RGR
A. Conduct Tactical Airlift	X	X		X	X			X	X	X	X	X	
B. Conduct Sea and Air Deployment Operations	X	X			X			X	X	X	X	X	
C. Conduct Airborne Operations	X	X		X	X		X	X	X	X		X	
D. Distribute Supplies and Provide Transport Services	X	X		X			X	X	X	X	X	X	X
E. Conduct Air Refueling	X	X	X	X	X	X		X	X	X			
F. Exercise Command and Control	X	X						X	X	X		X	
G. Conduct Joint Personnel Recovery	X	X	X	X	X	X	X	X	X	X	X	X	X
H. Conduct Noncombatant Evacuation	X	X	X	X	X	X		X	X	X	X	X	X

KC-130FRT CORE PLUS SKILLS					
METL	TACNAV	FORM	AD	DEFTAC	AR
A. Conduct Tactical Airlift	X	X		X	
B. Conduct Sea and Air Deployment Operations		X		X	X
C. Conduct Airborne Operations	X	X	X	X	
D. Distribute Supplies and Provide Transport Services	X		X	X	X
E. Conduct Air Refueling	X	X		X	X
F. Exercise Command and Control				X	
G. Conduct Joint Personnel Recovery	X	X	X	X	X
H. Conduct Noncombatant Evacuation	X	X		X	X

7. KC-130F/R/T Core Model Minimum Requirements. Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. Squadron core competency is measured in terms of minimum Core Skill Proficiency (CSP) and minimum numbers of flight leaders (flight leaders not included in this Chapter) per paragraph 8 below:

8. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), a crewmember must attain and maintain proficiency in core skill events, as delineated in paragraphs a and b below.

- NOTE: DEFTAC and Long Range AAR (LRAR) are core plus skills. Proficiency in DEFTAC and LRAR is not required to obtain unit CSP. and will not contribute to unit T-level readiness. Below are KC-130 community recommended unit/individual CSP standards for these skills.

KC-130FRT CSP Requirements Unit							
CORE SKILL CORE PLUS	Pilot	Copilot	TSO	FE	LM	FM	Crews
FAI	14	14	14	14	14	14	14
NS	9	9	9	9	9	9	9
AR	14	14	14	14	14	14	14
TACNAV	9	9	9	9	9	9	9
FORM	8	8		8			8
MULTI-PLANE AR	4	4					4
AD	4	4	4	4	8	4	4
LRNAV	12	12	12	12	12	12	12
THRX(I)	6	6	6	6	6	6	6
THRX(R)	4	4	4	4			4
ALZ	9	9	9	9	9	9	9
CPL					18		18
RGR				8	8	8	8
TACNAV	2	2					2
FORM	2	2					2
AD	4	4	4	4	8	4	4
DEFTAC	2	2	2	2	2	2	2
AR	2		2				2

KC-130FRT CSP Requirements 6 Plane Detachment							
CORE SKILL CORE PLUS	Pilot	Copilot	TSO	FE	LM	FM	Crews
FAI	7	7	7	7	7	7	7
NS	5	5	5	5	5	5	5
AR	7	7	7	7	7	7	7
TACNAV	5	5	5	5	5	5	5
FORM	4	4		4			4
MULTI-PLANE AR	2	2					2
AD	2	2	2	2	4	2	2
LRNAV	6	6	6	6	6	6	6
THRX(I)	3	3	3	3	3	3	3
THRX(R)	2	2	2	2			2
ALZ	5	5	5	5	5	5	5
CPL					9		9
RGR				4	4	4	4
TACNAV	2	2					2
FORM	2	2					2
AD	2	2	2	2	4	2	2
DEFTAC	1	1	1	1	1	1	1
AR	2		2				2

a. Events Required to Attain Individual CSP. To initially attain CSP, a crewmember must successfully complete all of the T&R events listed in the chart below for that core skill:

KC-130 FLIGHT MECHANIC Core Skills	FAM	NS	RW/FW AR	TAC NAV	FORM	AD	LONG RANGE NAV	ALZ EAF	RGR	THRX (R)	THRX (I)
Events required to Attain CSP	200R	204R 205R	210R 211R 212R 213R	220R 223R 224R 321R	231R	241R 242R	250R	271R 272R	274R	360R	361R

KC-130 FLIGHT MECHANIC Core + Skills	AD	DEFTAC
Events required to Attain Core + Proficiency	442R 444R	461R 462R

b. Events Required to Maintain Individual CSP. To maintain CSP, a crewmember must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

KC-130 FLIGHT MECHANIC	FAM	NS	RW/FW AR	TAC NAV	FORM	AD	LONG RANGE NAV	ALZ EAF	RGR	THRX (R)	THRX (I)
Events required to Maintain CSP	200R	204R 205R	211R 213R	224R 321R	231R	242R	250R	272R	274R	360R	361R

KC-130 FLIGHT MECHANIC Core + Skills	AD	DEFTAC
Events required to Maintain Core + Proficiency	442R 444R	462R

9. Qualifications And Designations Table. The table below delineates T&R events required to be completed to attain initial qualifications, re-qualifications, and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the Commanding Officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification.

Qualification (TRACKING CODE)	Initial Event Qualification Requirements.
RVD (605)	RQD-605 (Rear Vision Devices)
DEFTAC QUAL	DEFTAC-461, DEFTAC-462
NSQ (611)	NS-204, NS-205, RQD-681 and a designation letter signed by the Commanding Officer.

Designation (TRACKING CODE)	Initial Event Designation Requirements.
Flight Mech Initial Evaluation (680)	Core Introduction Phase complete and a designation letter signed by Commanding Officer.
Flight Mech Core Basic Evaluation (681)	Core Basic Phase Complete.
Flight Mech Annual NATOPS (682)	Annual NATOPS Re-qualification

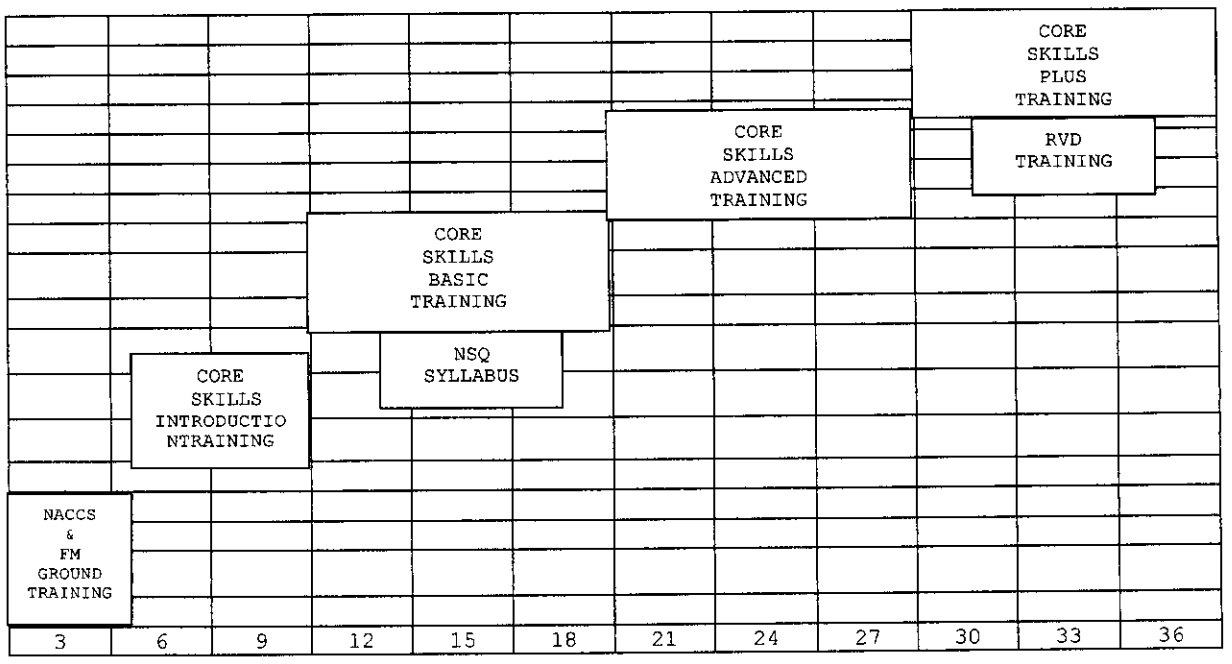
a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Combat Readiness Percentage (CRP). For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in the Aviation T&R Program Manual.

b. Proficiency. Proficiency is a measure of achievement of a specific skill. Re-fly factors establish the maximum time between demonstration of those particular skills. CRP is a measurement of "demonstrated proficiency." If an aircrew exceeds the re-fly factor for a particular event, the individual loses CRP for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient crewman/flight lead. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with instructors from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his Commanding Officer.

c. Qualification. A qualification is a status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve qualifications shall be delineated in individual T&R chapters. Upon successful completion of qualification criteria, Commanding Officers may issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR/MPR. Aircrew do not lose a qualification as a function of re-fly factor for individual events. Loss of proficiency (delinquent re-fly factor) for all associated qualification core skill events constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Specific re-qualification criteria shall be delineated in individual T&R chapters.

d. Designation. A designation is a status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause. Specific designation requirements shall be delineated in individual T&R chapters. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

10. KC-130 FRT Flight Mechanic Progression Model. The training progression model below provides recommended core skill, qualification, and designation attainment timelines for the average Flight Mechanic.



501. PROGRAMS OF INSTRUCTION (POI) FOR BASIC FLIGHT MECHANIC

WEEKS	COURSE/PHASE	ACTIVITY
1-6	NACCS	NAS Pensacola, FL
7-13	KC-130 Flight Mechanic Ground	Tactical Squadron
14-26	Core Skills Introduction Training	Tactical Squadron
27-52	Core Skills Basic Training	Tactical Squadron
53-105	Core Skills Advanced Training	Tactical Squadron
106-158	Core Plus Training	Tactical Squadron

502. POI FOR REFRESHER FLIGHT MECHANIC

WEEKS	COURSE/PHASE	ACTIVITY
1-9	Core Skills Introduction, Basic, and Advanced Training	Tactical Squadron

503. POI FOR CONVERSION FLIGHT MECHANIC (KC-130FRT)

WEEKS	COURSES/PHASE	ACTIVITY
1-9	Core Skills Introduction, Basic, and Advanced Training	Tactical Squadron

504. GROUND TRAINING COURSES OF INSTRUCTION

COURSE/PHASE	ACTIVITY
Naval Aircrew Candidate Course	NAS Pensacola, FL
Flight Mechanic Maintenance Course	Tactical Squadron
Flight Mechanic Flight Course	Tactical Squadron
Weapons and Tactics Course (WTI)	MAWTS-1 Yuma, AZ
Advanced Airlift Tactics Training Course	St. Joseph, MO.
Survival, Evasion, Resistance and Escape	NAS Brunswick, ME
	NAS North Island, CA

505. AIRCREW TRAINING REFERENCES. The following references shall be utilized to ensure safe and standardized training procedures, grading criteria, and aircraft operation:

NATOPS General Flight and Operating Instructions (OPNAVINST 3710.7_)
NATOPS Flight Manuals (NFM)
NATOPS Instrument Flight Manual (NIFM)
NATOPS Air-to-Air Refueling Manual (AAR Manual)
KC-130 Tactical Manual (TACMAN)
T&R Program Manual
MAWTS-1 Course Catalog
Allied Tactical Publication - 56 (ATP-56) Air to Air Refueling
Flight Clearance (FC) - issued by NAVAIR

506. EVENT PERFORMANCE REQUIREMENTS

1. Purpose. Familiarize the student flight mechanic in correct procedures for: turnaround inspections (preflight/post flight), servicing, engine start, taxi, run up, takeoff, cruise, descent, landing and securing, and normal and emergency procedures.

a. Once a Flight Mechanic has completed the core basic introduction series and maintains currency in type and model, no requirement exists to re-fly core basic introduction flights.

b. Flight Conditions

Code	Requirement
D	Shall be flown or conducted during day.
N	Shall be flown or conducted at night (using available night vision devices or flown unaided).
(N)	May be flown or conducted day or night; if at night, available night vision devices may be used or flown unaided.
NS	Shall be flown or conducted at night using available night vision devices.
(NS)	May be flown or conducted day or night; if at night, available night vision devices shall be used.
N*	Event Shall be flown or conducted at night unaided.
(N*)	Event may be flown or conducted at night; if at night, shall be flown unaided.

c. All flights annotated with an "E" shall be evaluated per the Aviation T&R Program Manual.

d. Devices

Code	Requirement
A	Event performed in aircraft.
S	Event performed in simulator or a simulated practical application.
A/S	Event performed in aircraft preferred/simulator optional.
S/A	Event performed in simulator preferred/aircraft optional.

e. Minimum required refresher flights are indicated with an "R". Additional guidance concerning refresher training requirements is contained in the Aviation T&R Program Manual.

f. Non-NSQ Flight Mechanics shall be instructed by an FE/LM-NSI when conducting NS training. For Flight Mechanics that are NSQ syllabus complete, Non-NSQ syllabus initial codes may be flown with an NSQ-FEI/ANI/NI/LMI provided the instructor is proficient in the code being conducted.

g. Upon completion of the Core Skills Introduction Training, Flight Mechanics may receive initial Core Skills Basic Training from a RQD-681 qualified Flight Engineer (FE-1).

2. Ground Training. Each aircraft system introduced in the combat capable stage requires a minimum of 4.0 hours ground instruction, unless otherwise noted.

3. Aircrew Coordination. Aircrew coordination shall be briefed for all flights and/or events.

507. CORE SKILL INTRODUCTION TRAINING

1. Familiarization

a. Purpose. Familiarize the student with the duties and procedures of the flight mechanic per current instructions.

b. General. Flight Engineer Instructor (FEI) will instruct student on all flights in this stage.

c. Crew Requirements. NATOPS Minimum flight crew, to include, Flight Mechanic instructor. IAW NAVAIR 01-75GAA-1.

d. Ground/Academic Training. Prior to each flight, 4.0 hours of ground instruction are required.

e. Flight Training. (15 Events, 64.0 Hours).

FAM-000 4.0 R,SC 1 KC-130 A

Goal. Introduce the student to turnaround inspections (preflight/post flight), squadron SOP, and normal and emergency procedures.

Requirement. Flight Engineer instructor will instruct student flight mechanic on correct turnaround inspections (preflight/post flight), squadron SOP, and normal and emergency procedures per current instructions.

Performance Standard. The student flight mechanic will be familiar with turnaround inspections (preflight/post flight), squadron SOP, normal and emergency procedures per current instructions.

Prerequisites. Flight Mechanic Ground Course.

FAM-100 4.0 R,SC 1 KC-130 A

Goal. Refine the student to turnaround inspections (preflight/post flight).

Requirement. Flight Engineer instructor will instruct student flight mechanic on correct turnaround inspections (preflight/post flight) per current instructions.

Performance Standard. Upon completion, the student flight mechanic will be familiar with turnaround inspections (preflight/post flight) per current instructions.

Prerequisite. FAM-000.

FAM-101 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft engine and GTC/APU systems.

Requirement. Flight Engineer instructor will instruct the student flight mechanic on aircraft engines.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft engines, operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-102 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft propeller systems.

Requirement. Flight Engineer instructor will instruct the student flight mechanic on aircraft propeller systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft propellers, operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-103 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft electrical systems.

Requirement. Flight Engineer instructor will instruct the student flight mechanic on aircraft electrical systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft electrical systems operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-104 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft bleed air and anti-icing/de-icing systems.

Requirement. Flight Engineer instructor will instruct the student flight mechanic on aircraft bleed air and anti-icing/de-icing systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft bleed air and anti-icing/de-icing systems operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-105 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft fuel system.

Requirement. Flight Engineer instructor will instruct the student flight mechanic on aircraft fuel systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft fuel systems, operation, possible malfunctions and component locations.

Prerequisites. FAM-100.

FAM-106 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft hydraulic systems.

Requirement. Flight Engineer instructor will instruct the student flight mechanic on hydraulic systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft hydraulic systems, their operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-107 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft air conditioning and pressurization and oxygen systems.

Requirement. Flight Engineer instructor will instruct student flight mechanic on aircraft air conditioning/pressurization systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft air conditioning/pressurization systems, operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-108 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aircraft communication and navigation systems.

Requirement. Flight Engineer instructor will instruct student flight mechanic on aircraft communication and navigation systems.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aircraft communication/navigation systems, operation, possible malfunctions, and component locations.

Prerequisites. FAM-100.

FAM-109 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on aerial refueling systems, fixed wing aerial refueling observer procedures and duties.

Requirement. Flight Engineer instructor will instruct student flight mechanic on aircraft aerial refueling systems and observer duties.

Performance Standard. Upon completion, the student flight mechanic shall be familiar with aerial refueling systems, operation, possible malfunctions, component locations and observer duties.

Prerequisites. FAM-100.

External Syllabus Support. Fixed Wing Receiver.

FAM-110 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on helicopter aerial refueling procedures and observer duties.

Requirement. The student flight mechanic shall be familiar on helicopter aerial refueling procedures and observer duties.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aerial refueling procedures and qualified as an aerial refueling observer.

Prerequisites. FAM-100.

External Syllabus Support. Rotary Wing Receiver.

FAM-111 4.0 R,SC E 1 KC-130 A

Goal. Evaluate the student flight mechanic on aerial refueling procedures and observer duties.

Requirement. The student flight mechanic shall be familiar on aerial refueling procedures and observer duties.

Performance Standard. Upon completion, the student flight mechanic will be familiar with aerial refueling procedures and qualified as an aerial refueling observer.

Prerequisites. FAM-109, FAM-110.

External Syllabus Support. Fixed or Rotary Wing Receiver.

FAM-112 4.0 R,SC 1 KC-130 A

Goal. Familiarize the student flight mechanic on low level operations per current instructions.

Requirement. The student flight mechanic shall be familiar with low-level operations and procedures.

Performance Standard. Upon completion, the student flight mechanic will be familiar with low-level operations and procedures IAW TACMAN and NFM.

Prerequisites. FAM-111.

FAM-113 4.0 R,SC E 1 KC-130 A

Goal. Review previous instructions as necessary.

Requirement. Flight Engineer instructor will review all previous instructions as necessary.

Performance Standard. Upon completion, the student flight mechanic will be familiar with low level procedures per current instructions.

Prerequisites. FAM-000 through FAM-112.

2. Flight Mechanic NATOPS Initial Evaluation

a. Purpose. Evaluate the student flight mechanic per NATOPS procedures.

b. General. Flight mechanic evaluation will be conducted during this stage.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

508. CORE SKILL BASIC TRAINING

1. General. Upon completion of this phase of training, the Flight Mechanic will be daytime and Night System Qualified in the non-LAT (NSQ) environment for the basic core skill mission areas. They include tactical navigation (TACNAV) in a threat environment (THRX (I)), Assault Landing Zone operations (ALZ), FW/RW air-to-air refueling (AR), rapid ground refueling (RGR) operations and long-range operation. The focus will be on flight crew resource management, aircraft preflight preparation, location and use of emergency equipment, ground and in-flight emergency procedures, aircraft post flight procedures, systems operation, system malfunctions, corrective actions, fault isolation and in-flight fault isolation. At the completion of this phase, the Flight Mechanic (FM-2) shall be NATOPS qualified, designated a "Flight Mechanic 1" RQD-681.

a. Flight Mechanics receiving initial training shall be instructed by either current Squadron Flight Engineer 1, FEI, WTIs or NSIs (as required).

b. Once they have completed the initial event, subsequent events shall be flown without the above listed instructors.

2. Familiarization

a. Purpose. Maintain Flight Mechanic proficiency on administrative flights.

b. General. Flight Mechanic shall fly initial codes with a qualified Flight Engineer 1, subsequent events may be flown without an instructor.

c. Crew Requirements. Minimum flight crew.

d. Academic/Ground Training. Each flight requires 1 hour of classroom instruction.

3. Administrative Flight

a. Purpose. Maintain flight mechanic proficiency on administrative flights.

b. Flight Training. (1 Event, 2 Hours).

FM-200 2.0 R,SC 1 KC-130 A (N)

Goal. Maintain proficiency in normal and emergency procedures during day/night flight operations.

Requirement. Review normal and emergency procedures during day flight operations per current instructions.

Prerequisites. RQD-680.

4. Night Systems Familiarization

a. Purpose. To develop proficiency at operating aircraft at night using night vision devices in a non-LAT environment.

b. General. Flight Mechanic conducting NS training shall be instructed by an NSI (FE or LM) for all initial syllabus codes. Subsequent events and non-syllabus NS codes or NS optional codes may be initially flown with a proficient NSQ FEI or LMI as long as the Flight Mechanic has the prerequisites for the event.

c. Crew Requirements. NATOPS minimum crew or greater, unless otherwise specified for the event.

d. Ground/Academic Training. MAWTS-1 NVD ASP courses and NITE lab (includes Night Vision Systems, N.S. Human Factors and Night Environment ASPs).

e. Flight Training. (2 Events, 4 Hours).

NS-204 2.0 R,SC 1 KC-130 A NS

Goal. HLL NVD Operations.

Requirement. Preflight shall include a flight station, cargo compartment and exterior lighting demonstration with NVDs. Mission must be flown IAW volume I of the T&R Manual high light level standards.

Performance Standard. Satisfactory completion per NFM, KC-130 TACMAN (AS REQUIRED), and OPNAVINST 3710.7.

Prerequisite. FM-200, MAWTS-1 NVD ASP ground instruction and NITE lab.

NS-205 2.0 R,SC 1 KC-130 A NS

Goal. LLL NVD Operations.

Requirement. Conduct all operations included in NS-203 under LLL conditions.

Performance Standard. Satisfactory completion per NFM, KC-130 TACMAN (AS REQUIRED), and OPNAVINST 3710.7.

Prerequisite. NS-204, MAWTS-1 NVD ASP ground instruction and NITE lab.

5. Aerial Refueling Familiarization

a. Purpose. Refine Flight Mechanic in aerial refueling missions per current instructions.

b. General. Flight Mechanic shall conduct normal and emergency procedures associated with aerial refueling in addition to crew responsibilities in day, night and NVD procedures.

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A qualified (FE1) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review NATOPS Flight Manual, NATOPS flight manual supplements, NATOPS Air-to-Air Refueling Manual, KC-130 TACMAN, and MAWTS-1 Tactical AR Courseware relating to fixed-wing AR procedures.

e. Flight Training. (4 Events, 16.0 Hours).

AR-210 4.0 R,SC 1 KC-130F/R/T A

Goal. Day fixed wing aerial refueling procedures.

Requirement. Review normal and emergency aerial refueling procedures PER KC-130 TACMAN and AR Manual. Use of EMCON procedures is optional.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200.

External Syllabus Support. Fixed Wing Receiver Aircraft and special use airspace.

AR-211 4.0 R,SC 1 KC-130F/R/T A N

Goal. Introduce and refine night fixed wing aerial refueling procedures.

Requirement. Review normal and emergency aerial refueling procedures at night PER KC-130 TACMAN and AR Manual. Use of EMCON procedures is optional.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. AR-210.

External Syllabus Support. Fixed Wing Receiver Aircraft and special use airspace.

AR-212 4.0 R,SC 1 KC-130F/R/T A

Goal. Day helicopter aerial refueling procedures.

Requirement. Review normal and emergency helicopter refueling procedures PER KC-130 TACMAN and AR Manual. Use of EMCON procedures is optional.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. AR-200.

External Syllabus Support. Rotary Wing Receiver Aircraft and special use airspace.

AR-213 4.0 R,SC 1 KC-130F/R/T A N

Goal. Introduce night helicopter aerial refueling procedures.

Requirement. Review normal and emergency helicopter refueling procedures at night PER KC-130 TACMAN and AR Manual. Use of EMCON procedures is optional.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. AR-212.

External Syllabus Support. Rotary Wing Receiver Aircraft and special use airspace.

6. Tactical Navigation

a. Purpose. Train the Flight Mechanic in low level procedures.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A qualified (FE1) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review NATOPS Flight Manual, KC-130 TACMAN, and MAWTS-1 ASP Low Level Navigation Courseware.

e. Flight Training. (3 Events, 8.0 Hours).

TACNAV-220 2.0 R,SC 1 KC-130F/R/T A

Goal. Day low-level procedures.

Requirement. Fly a low-level route PER KC-130 TACMAN procedures.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200.

TACNAV-223 3.0 R,SC 1 KC-130F/R/T A NS

Goal. NVG HLL low level procedures.

Requirement. Fly a night low level route PER KC-130 TACMAN procedures.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. NS-204, TACNAV-220.

TACNAV-224 3.0 R,SC 1 KC-130F/R/T A NS

Goal. NVG LLL low level procedures.

Requirement. Fly a night low level route PER KC-130 TACMAN procedures.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. NS-205, TACNAV-220.

7. Formation

a. Purpose. Train the Flight Mechanic in formation procedures.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A qualified (FE1) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review NATOPS Flight Manual, KC-130 TACMAN, and MAWTS-1 ASP Low Level Navigation Courseware.

e. Flight Training. (1 Event, 3.0 Hours).

FORM-231 3.0 R 2 KC-130F/R/T A (N)

Goal. Proficiency training in formation procedures.

Requirement. Fly a two plane formation flight per NATOPS and TACMAN.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. TACNAV-200.

8. Aerial Delivery

a. Purpose. Refine the Flight Mechanic in aerial delivery procedures per current instructions.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A qualified (FE1) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review NFM, KC-130 TACMAN, and MAWTS-1 AD courseware information regarding personnel and cargo delivery procedures.

e. Flight Training. (2 Events, 6.0 Hours).

AD-241 3.0 R 1 KC-130F/R/T A

Goal. Introduce aerial delivery procedures.

Requirement. Fly and review aerial delivery mission of cargo or troops PER TACMAN.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200.

External Syllabus Support. AD Platoon, USAF CCT, USMC MMT.

AD-242 3.0 R 1 KC-130F/R/T A NS

Goal. Introduce NVG aerial delivery procedures.

Requirement. Fly and review aerial delivery mission of cargo or troops and NVG considerations PER TACMAN.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. AD-241, NS-204, NS-205.

External Syllabus Support. AD Platoon, USAF CCT, USMC MMT.

9. Long-Range Over water Operations

a. Purpose. Refine the Flight Mechanic in extended over water procedures.

b. General. Fly an extended over water flight and review over-water procedures placing emphasis on mission planning, use of aircraft performance data, and engine/fuel logs.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Specific fuel panel procedures, and NATOPS long range cruise considerations.

e. Flight Training. (1 Event, 8.0 Hours).

LRNAV-250 8.0 R 1 KC-130 A (N)

Goal. Refine extended over water procedures.

Requirement. Fly an extended over water flight and review over-water procedures placing emphasis on mission planning, provisions, and fuel requirements.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200.

10. Assault Landing Zones

a. Purpose. Train the Flight Mechanic on Assault landing zones and Expeditionary Airfield Operations.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A qualified (FE1) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review Assault Landing Zone operations in KC-130 TACMAN. Review MAWTS-1 ASP ALZ courseware. Familiarize the Flight Engineer with ground emergencies in an austere environment and performance data for specific circumstances applicable pubs for unimproved runway operation.

e. Flight Training. (2 Events, 4.0 Hours).

ALZ-271 2.0 R 1 KC-130F/R/T A

Goal. Introduce ALZ procedures at improved/unimproved fields.

Requirement. Introduce maximum effort takeoffs and landings at improved field IAW TACMAN. Review all appropriate performance data.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200.

External Syllabus Support. MMT, CCT.

ALZ-272 2.0 R 1 KC-130F/R/T A NS

Goal. Introduce NVG ALZ procedures.

Requirement. Introduce maximum effort takeoffs and landings while utilizing NVG's IAW TACMAN. Review all appropriate performance data.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200, NS-204, ALZ-271.

External Syllabus Support. MMT, CCT.

11. Rapid Ground Refueling

a. Purpose. Train the Flight Mechanic in rapid ground refueling.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A qualified (FE1) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review KC-130 TACMAN RGR procedures and MAWTS-1 ASP RGR courseware. Complete a class that includes but is not limited to a review of hand and arm signals, defense of site, flight operations around site, and crew responsibilities/CRM on the ground.

e. Flight Training. (1 Event, 0.0 Hours).

RGR-274 0.0 R 1 KC-130 A (N)

Goal. Train the FM in rapid ground refueling.

Requirement. Conduct rapid ground refueling with actual aircraft engines running PER NATOPS and TACMAN.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. FM-200.

509. CORE SKILL ADVANCED TRAINING

1. General. Upon completion of this level, the Flight Mechanic will be , proficient in LAT (TACNAV)low level, Assault Landing Zone operations, basic aerial delivery procedures and Defensive Tactics against a surface-based threats THRX(R).

a. The purpose of this phase of training is to provide a combat qualified Flight Mechanic. Flight Mechanics receiving initial training shall be instructed by either current a Flight Engineer Instructor (RQD-690), or WTI (RQD-692) when required.

b. Upon completion of each stage in this phase, the FM-1 shall be able to fly subsequent events in the stage without instruction. For example: Once an FM-2 has completed TACNAV-321 he is now considered TACNAV complete. The FM-1 is now qualified to fly all events in the AR phase without the aid of an instructor.

2. Tactical Navigation

a. Purpose. Qualify the Flight Mechanic, or to maintain proficiency for the LAT qualified Flight Mechanic, in both day and night LAT in the unique tasks and requirements associated with low altitude tactics flights in a low to medium ground threat environment.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event. LAT rules of conduct are contained in KC-130 TACMAN. All LAT sorties require all crewmembers to be LAT qualified and proficient.

(2) A Flight Engineer Instructor (FEI) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Per the MAWTS-1 Course Catalog. Complete MAWTS-1 ASE courseware for LAT and review KC-130 TACMAN or published TTP as appropriate.

e. Flight Training. (1 Event, 3.0 Hours).

TACNAV-321 3.0 R 1 KC-130F/R/T A

Goal. Introduce and qualify the Flight Mechanic, or to maintain proficiency for the LAT qualified Flight Mechanic, in the duties associated with low altitude tactics flights in a low to medium ground threat environment.

Requirement. Emphasis will be placed on cargo compartment preparation, crew briefing, lookout doctrine, scan for threats, crew coordination and combat entry/exit checklists. This event may include air-to-air refueling, aerial delivery or any type of air/land delivery.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. RQD-681.

External Syllabus Support. Approved LAT training route, Threat Emitters.

3. Threat Reaction (Radar) (THRX(R))

a. Purpose

(1) Qualify the Flight Mechanic in the coordinated use of defensive maneuvering and the Aircraft Survivability Suite (ASE) against surface-to-air threat systems.

(2) Familiarize the Flight Mechanic with the procedures incorporated in the use of the RVD.

b. General

(1) Qualify the Flight Mechanic, or maintain proficiency for the DEFTAC qualified Flight Mechanic, in the unique tasks and requirements associated with defensive tactics flights in a low to medium air threat environment. This phase of instruction may be taught locally utilizing the MAWTS-1 ASP, or in conjunction with AATTC, by a qualified Instructor.

(2) Qualify or maintain proficiency.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Prior to THRX(R)-360, the Flight Engineer shall review pertinent chapters in the KC-130 TACMAN and receive:

(1) MAWTS-1 ASP course on Tactical Aircrew Coordination.

(2) MAWTS-1 ASP course on MAGTF Ground Based Air Defense System (GBADS).

(3) MAWTS-1 ASP course on KC-130 Specific Threat Counter-Tactics.

(4) Specific training on installed KC-130FRT ASE equipment.

e. Flight Training. (1 Event, 3.0 Hours).

THRX-360 3.0 R,SC 1 KC-130 A (N)

Goal. Train the Flight Mechanic duties in RADAR Counter tactics.

Requirement. Conduct and train in Radar Counter tactics. Refine FE to pertinent ground loading procedures, system setup and operation of ASE systems in flight, emphasis on evasive flight techniques in coordination with ASE employment. Conduct defensive maneuvering against Radar threat. Emphasis shall be placed on briefing, conduct of flight, and lookout doctrine.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. RQD-681.

Ordnance. 160 decoy chaff, 140 flares.

External Syllabus Support. Approved LAT training route, Threat Emitters, SST team.

4. Threat Reaction IR Counter tactics

a. Purpose. Refine the Flight Mechanic IR Counter tactics procedures.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight Engineer or Loadmaster as long as the Flight Mechanic has met the prerequisites for the event.

(2) A Flight Engineer Instructor (FEI) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Prior to THRX(R)-360 or THRX(I)-361, the Flight Mechanic shall review pertinent chapters in the KC-130 TACMAN and receive:

(1) MAWTS-1 ASP course on tactical aircrew coordination.

(2) MAWTS-1 ASP course on MAGTF ground based air defense system (GBADS).

(3) MAWTS-1 ASP course on KC-130 specific threat counter-tactics.

(4) Specific training on installed KC-130FRT ASE equipment.

e. Flight Training. (1 Event, 4.0 Hours).

THRX-361 4.0 R,SC 1 KC-130 A (N)

Goal. Train the Flight Mechanic duties in IR Counter tactics.

Requirement. Conduct and train in IR Counter tactics. Introduce FM to pertinent ground loading procedures, system setup and operation of ASE systems in flight, emphasis on evasive flight techniques in coordination with ASE employment. Conduct defensive maneuvering against ground IR threat. Emphasis shall be placed on briefing, conduct of flight, and lookout doctrine.

Performance Standard. Flight Mechanic shall perform responsibilities/duties IAW NFM.

Prerequisite. RQD-681.

Ordnance. 160 decoy chaff, 140 flares.

External Syllabus Support. SST Team.

510. CORE SKILL PLUS TRAINING

1. General. Upon completion of this level, the Flight Mechanic will be proficient in unaided tactical navigation, day and night high altitude aerial delivery, battlefield illumination aerial delivery, defensive tactics against an air-based threat, and night time unaided assault landings

a. Flight Mechanics receiving initial training shall be instructed by a current Squadron Stage Instructor, DEFTACI, NSI or WTI (as required). Once they have completed the initial event, subsequent events may be flown with proficient aircrew.

b. Upon completion of each stage in this phase, the FM-1 shall be able to fly subsequent events in the stage without instruction. For example: Once an FM-2 has completed AD-444 he is now considered AD complete. The FM-1 is now qualified to fly all events in the AR phase without the aid of an instructor.

2. Aerial Delivery

a. Purpose. Refine the Flight Mechanic in high altitude environment aerial delivery procedures per TACMAN.

b. General

(1) Flight Mechanic conducting NS training shall be instructed by an NSI for all NSQ syllabus initial codes. Subsequent events and non-syllabus NS or NS optional codes may be initially flown with a proficient NSQ Flight

Mechanic as long as the Flight Mechanic has met the prerequisites for the event.

(2) A WTI (FE or LM) shall accompany all initial qualified crewmembers.

c. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

d. Ground/Academic Training. Review NFM, KC-130 TACMAN, and MAWTS-1 AD courseware information regarding personnel and cargo delivery procedures.

e. Flight Training. (2 Events, 4.0 Hours).

AD-442 2.0 R 1 KC-130F/R/T A (N)

Goal. Introduce and qualify the Flight Mechanic, or to maintain proficiency for the qualified Flight Mechanic, in the duties associated with high altitude environment aerial delivery.

Requirement. Emphasize cargo compartment preparation, crew briefing, lookout doctrine, scan for threats, crew coordination and combat entry/exit checklists. This event may include air-to-air refueling, aerial delivery or any type of air/land delivery.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. AD-241.

External Syllabus Support. AD Platoon.

AD-444 2.0 R 1 KC-130F/R/T A N

Goal. Introduce and qualify the Flight Mechanic, or to maintain proficiency for the qualified Flight Mechanic, in the duties and procedures associated with battlefield illumination.

Requirement. Emphasize cargo compartment preparation, crew briefing, crew coordination and combat entry/exit checklists.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. AD-241.

Ordnance. LU-2A/B.

External Syllabus Support. Ordnance Personnel, approved Training Area.

3. Defensive Tactics (DEFTAC)

a. Purpose. Refine the Flight Mechanic duties in Defensive Tactics procedures. Introduce defensive tactics utilized in air-to-air engagements by combining maneuvering and use of the ASE suite. Emphasize lookout doctrine and use of the Rear Vision Device (RVD).

b. General. The DEFTAC qualification requirements consist of DEFTAC-461 and DEFTAC-462. The following is recommended but not required:

(1) Aircraft must have fully operational ASE suite.

(2) Appropriate Chaff and Decoy Flares must be loaded prior to flight.

c. Instructor Requirement. DEFTAC shall be instructed by a any WTI.

d. Crew Requirements. NATOPS minimum crew or greater unless otherwise specified for the event.

e. Ground/Academic Training. Academic prerequisites Per MAWTS-1 KC-130FRT Defensive Tactics Course. Prior to DEFTAC-461, the Flight Mechanic shall receive:

(1) This phase of instruction may be taught locally utilizing the MAWTS-1 ASP, or in conjunction with AATTC, by a qualified Instructor DEFTAC shall be instructed by a DEFTACI/WTI.

(2) MAWTS-1 ASP course on Tactical Aircrew Coordination.

(3) MAWTS-1 ASP course on MAGTF Ground Based Air Defense System (GBADS).

(4) MAWTS-1 ASP course on KC-130 Specific Threat Counter-Tactics.

(5) Specific training on installed KC-130FRT ASE equipment.

f. Flight Training. (2 Events, 4.0 Hours).

DEFTAC-461 2.0 R 1 KC-130, 1 Adversary A

Goal. Introduce the Flight Mechanic in defensive tactics mission maneuvering relative to an air threat.

Requirement. The Flight Mechanic will perform normal and emergency procedures during a flight involving the use of defensive tactics. Emphasis will be placed on crew briefing, lookout doctrine, scan for air threats and terrain clearance, crew coordination and combat entry/exit checklists. This event may include escorts. Emphasize lookout doctrine and use of RVD.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. TACNAV-321.

Ordnance. Standard Chaff and Flare Load out.

External Syllabus Support. Appropriate aggressor aircraft.

DEFTAC-462 2.0 R 1 KC-130, 2 Adversaries A

Goal. Refine and maintain proficiency for the DEFTAC qualified Flight Mechanic during a defensive tactics mission maneuvering relative to an air threat.

Requirement. The Flight Mechanic will perform normal and emergency procedures during a flight involving the use of defensive tactics. Emphasize crew briefing, lookout doctrine, scan for air threats and terrain clearance, crew coordination and combat entry/exit checklists. This event may include escorts. Emphasize lookout doctrine and use of RVD.

Performance Standard. Per the NFM and KC-130 TACMAN.

Prerequisite. DEFTAC-461.

Ordnance. Standard Chaff and Flare Load out.

External Syllabus Support. Appropriate aggressor aircraft.

511. REQUIREMENTS, QUALIFICATIONS AND DESIGNATIONS

1. Purpose. To provide a vehicle for tracking codes associated with qualifications and designations.

2. General

a. "E"-coded sorties are evaluation sorties. "E"-coded sorties in the 600-level phase may be logged in conjunction with any sortie that completes its stage. CRP is not awarded for these 600-level sorties; however, CRP credit may be obtained by logging the appropriate training code(s) in the 200-400 level syllabus. Once the flight to attain the qualification/designation is complete, a letter from the squadron Commanding Officer awarding the qualification/designation shall be placed in the NATOPS and APR before that qualification/designation can be utilized.

b. After the commanding officer has designated the FMT in writing as a Flight Mechanic, the operations department shall log RQD-680.

3. Rear Viewing Device Tracking Code

a. Purpose. Provide a tracking code Rear Viewing Device (RVD).

b. General. Conduct THRX/DEFTAC flight using RVD from forward escape hatch position. Emphasize lookout doctrine, scan for air threats, terrain clearance, and crew coordination.

(1) This flight may be flown in conjunction with any threat reaction, THRX, or DEFTAC.

(2) The following is recommended however not required:

(a) Aircraft must have fully operational ASE suite.

(b) Appropriate Chaff and Decoy Flares must be loaded prior to flight.

c. Ground Training. Academic prerequisites per MAWTS-1 KC-130FRT Defensive Tactics Course. Prior to DEFTAC-461, the Flight Mechanic shall receive:

(1) This phase of instruction may be taught locally utilizing the MAWTS-1 ASP, or in conjunction with AATTC, by a qualified Instructor DEFTAC shall be instructed by a DEFTACI/WTI.

(2) MAWTS-1 ASP course on Tactical Aircrew Coordination.

(3) MAWTS-1 ASP course on MAGTF Ground Based Air Defense System (GBADS).

(4) MAWTS-1 ASP course on KC-130 Specific Threat Counter-Tactics.

(5) Specific training on installed KC-130FRT ASE equipment.

d. Flight Training. (1 Event, 2.0 Hours).

RQD-605 2.0 R, SC E 1 KC-130 A

Goal. Qualify and maintain currency for the Flight Mechanic proficiency in RVD procedures.

Requirement. Conduct THRX/DEFTAC flight using RVD from forward escape hatch position. Emphasis will be placed on lookout doctrine, scan for air threats, terrain clearance, and crew coordination.

Performance Standard. Satisfactorily execute procedures per the TACMAN, NFM, and OPNAVINST 3710.7_.

Prerequisite. FM-200, TACNAV-220, TACNAV-321.

Ordnance. Standard Chaff and Flare Load out.

4. Night Systems Qualification (NSQ)

a. Purpose. NSQ qualification.

b. General. Flight Mechanic receiving instruction leading to NSQ in the KC-130 will be qualified in the equivalent day sortie.

(1) An Flight Engineer NSI crewmember shall conduct this phase of instruction.

(2) NVG time logged as part of night lab will count towards NSQ qualification.

c. Ground Training. MAWTS-1 NVD ASP courses and NITE lab (includes Night Vision Systems, N.S. Human Factors and Night Environment ASPs).

d. Flight Training. (1 Event, 2.0 Hours).

RQD-611 0.0 1 KC-130 A NS

Goal. Tracking Code for the Flight Mechanic in flights involving NSQ.

Requirement. The Flight Mechanic will demonstrate his ability to perform Flight Mechanic duties utilizing night devices.

Performance Standard. Satisfactorily execute the procedures per NFM, KC-130 TACMAN, TTP (AS REQUIRED), and MAWTS-1 ASP for NSQ.

Prerequisite. NS-204, NS-205, RQD-681.

5. Flight Mechanic NATOPS Evaluations

a. Purpose. Evaluate the student Flight Mechanic per NATOPS procedures.

b. General. Flight Mechanic evaluations will be conducted during this phase. Upon successful completion of these stages, the Flight Mechanic under instruction shall be designated the appropriate level of qualification.

c. Crew Requirements. Minimum crew and Flight Engineer NATOPS instructor/evaluator.

d. Flight Training. (3 Events, 12.0 Hours).

RQD-680 4.0 R,SC E 1 KC-130F/R/T A (N)

Goal. Flight Mechanic Initial NATOPS evaluation (FM-2).

Requirement. ANI/NI will evaluate student Flight Mechanic per NATOPS procedures. Remain overnight (RON) flight is preferred.

Performance Standard. Student Flight Mechanic shall perform responsibilities/duties IAW NFM, 3710.7, 4790.2_ and associated MIMS.

Prerequisite. All core skill introduction codes.

RQD-681 4.0 R,SC E 1 KC-130 A (N)

Goal. Flight Mechanic Basic NATOPS evaluation (FM-1).

Requirement. ANI/NI will evaluate Flight Mechanic per NATOPS procedures. Should be either AR, AD, LL, ALZ, RGR, or combination mission. Remain overnight (RON) flight is preferred.

Performance Standard. Flight Mechanic under instruction shall perform responsibilities/duties IAW NFM, TACMAN, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. RQD-680.

RQD-682 4.0 E 1 KC-130 A (N)

Goal. Annual NATOPS evaluation and subsequent annual evaluations.

Requirement. ANI/NI will evaluate Flight Mechanic per NATOPS procedures. Should be either AR, AD, LL, ALZ, RGR, or combination mission. Remain overnight (RON) flight is preferred.

Performance Standard. Flight Mechanic under evaluation shall perform responsibilities/duties IAW NFM, TACMAN, 3710.7_, 4790.2_ and associated MIMS.

Prerequisite. Successful completion of NATOPS open and closed books tests IAW NFM and annual CRM Training.

512. SYLLABUS MATRIX. The following matrix provides an overview of the KC-130 Flight Mechanic syllabus.

KC-130T/T1 FLIGHT MECHANIC														
100 SERIES CORE SKILL INTRODUCTION														
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
FAM						FAM								
FAM	000	GRND FAM	4.0		*	A	1	D	Ground Course	R,SC		4.0		000
FAM	100	PRE FLT	4.0		*	A	1	D	000	R,SC		4.0		100
FAM	101	ENGINES	4.0		*	A	1	D	100	R,SC		4.0		101
FAM	102	PROPS	4.0		*	A	1	D	100	R,SC		4.0		102
FAM	103	ELEC	4.0		*	A	1	D	100	R,SC		4.0		103
FAM	104	BLD AIR	4.0		*	A	1	D	100	R,SC		4.0		104
FAM	105	FUEL SYS	4.0		*	A	1	D	100	R,SC		4.0		105
FAM	106	HYD SYS	4.0		*	A	1	D	100	R,SC		4.0		106
FAM	107	A/C, O2	4.0		*	A	1	D	100	R,SC		4.0		107
FAM	108	COM/NAV	4.0		*	A	1	D	100	R,SC		4.0		108
FAM	109	FWAR	4.0		*	A	1	D	100	R,SC		4.0		109
FAM	110	HAR	4.0		*	A	1	D	100	R,SC		4.0		110
FAM	111	AR EVAL	4.0		*	A	1	D	109 - 110	R,SC	E	4.0		111
FAM	112	LOW LVL	4.0		*	A	1	D	111	R,SC		4.0		112
FAM	113	PRE CHK	4.0		*	A	1	D	000 - 112	R,SC	E	4.0		113
			60.0	0.0								60.0		
TOTAL FLT/SIM HOURS FOR STAGE			60.0	0.0						TOTAL CRP FOR STAGE		60.0		

KC-130T FLIGHT MECHANIC 200 SERIES CORE SKILL BASIC														
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
FLIGHT MECH INTRODUCTION														
FM	200	D/N FAM	2.0		90	A	1	(N)	680	R,SC		1.0		200
			2.0	**0.0**								**1.0**		
NIGHT SYSTEMS														
NS	204	HLL FAM	2.0		180	A	1	NS	ASP/NITE LAB, 200	R,SC		0.5		204
NS	205	LLL FAM	2.0		180	A	1	NS	ASP/NITE LAB, 204	R,SC		0.5	204	205
			4.0	**0.0**								**1.0**		
AERIAL REFUELING														
AR	210	DAY FWAR	4.0		365	A	1	D	200	R,SC		1.0		210
AR	211	NITE FWAR	4.0		365	A	1	N	210	R,SC		1.0	210,(204HLL),(205LLL)	211
AR	212	DAY HAR	4.0		365	A	1	D	200	R,SC		1.0		212
AR	213	NITE HAR	4.0		365	A	1	N	212	R,SC		1.0	212,(204HLL),(205HLL)	213
			16.0	**0.0**								**4.0**		
TACTICAL NAVIGATION														
TACNAV	220	DAY LL	2.0		365	A	1	D	200	R,SC		1.0		220
TACNAV	223	HLL LL	3.0		365	A	1	NS	204,220	R,SC		1.0	204,220	223
TACNAV	224	LLL LL	3.0		365	A	1	NS	205,220	R,SC		1.0	205,220,223	224
			8.0	**0.0**								**3.0**		
FORM														
FORM	231	FORM	3.0		365	A	2	(N)	200	R		0.5		231
			3.0	**0.0**								**0.5**		
AERIAL DELIVERY														
AD	241	DAY AD	3.0		365	A	1	D	200	R		1.0		241
AD	242	NS AD	3.0		365	A	1	NS	241,204,205	R		0.5	241,(204HLL),(205LLL)	242
			6.0	**0.0**								**1.5**		
LONG RANGE NAV														
LRNAV	250	LONG RANGE	8.0		365	A	1	(N)	200	R		1.0		250
			8.0	**0.0**								**1.0**		
ASSAULT LANDING ZONE														
ALZ	271	DAY ALZ	2.0		365	A	1	D	200	R		1.0		271
ALZ	272	NS ALZ	2.0		365	A	1	NS	200,204,271	R		1.0	271,(204HLL),205LLL)	272
			4.0	**0.0**								**2.0**		
RAPID GROUND REFUELING														
RGR	274	D/N RGR	0.0		365	A	1	(N)	200	R		1.0		274
			0.0	**0.0**								**1.0**		
TOTAL FLT/SIM HOURS FOR STAGE			**51.0**	**0.0**	**TOTAL CRP FOR STAGE**							**15.0**		

KC-130FRC FLIGHT MECHANIC 300 SERIES CORE SKILL ADVANCED														
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
TACTICAL NAVIGATION														
TACNAV	321	LAT	3.0		*	A	1	D	681	R		7.0	220	321
			3.0	**0.0**								**7.0**		
THREAT REACTION														
THRX	360	RADAR	3.0		365	A	1	(N)	681	R,SC		6.5	220	360
THRX	361	IR	4.0		365	A	1	(N)	681	R,SC		6.5	220	261
			7.0	**0.0**								**13.0**		
TOTAL FLT/SIM HOURS FOR STAGE			**10.0**	**0.0**	TOTAL CRP FOR STAGE							**20.0**		

KC-130FRC FLIGHT MECHANIC 400 SERIES CORE SKILL PLUS														
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
AERIAL DELIVERY														
AD	442	HALO	2.0		*	A	1	(N)	241	R		1.5	241	442
AD	444	BI	2.0		*	A	1	N	241	R		1.5	241	444
			4.0	**0.0**								**3.0**		
DEFENSIVE TACTICS														
DEFTAC	461	INT DEF	2.0		*	A	1	D	321	R		1.0	220,321	461
DEFTAC	462	RFN DEF	2.0		*	A	1	D	461	R		1.0	220,321,461	462
			4.0	**0.0**								**2.0**		
TOTAL FLT/SIM HOURS FOR STAGE			**8.0**	**0.0**	TOTAL CRP FOR STAGE							**5.0**		

KC-130FRT FLIGHT MECHANIC															
600 SERIES REQUIREMENTS / QUALIFICATIONS / DESIGNATIONS															
STAGE	TRNG CODE	EVENT DESCRIPTION	FLIGHT HOURS	SIMULATOR HOURS	REFLY INTERVAL	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVALUATION	CRP	CHAINING	EVENT CONVERSION
TRACK CODES														
RQD	605	RVD FAM	2.0		*	A	1	D	200,220,321	R,SC	E	0.0		602
RQD	611	NSQ	0.0					NS	204,205,681			0.0		605
RQD	680	FM-2	4.0		365	A	1	(N)	Core Skill Intro Complete	R,SC	E	0.0		611
RQD	681	FM-1	4.0		365	A	1	(N)	680	R,SC	E	0.0	680	681
RQD	682	AN NATOPS	4.0		365	A	1	(N)	Open/Closed Book,CRM	R,SC	E	0.0	680,681	682
			14.0	0.0								0.0		
TOTAL FLT/SIM HOURS FOR STAGE			14.0	0.0					TOTAL CRP FOR STAGE			0.0		